

What is claimed is:

CLAIMS

1. A tie down device for engaging between spaced parallel slats, have a nominal thickness and spacing, comprising:

5 (a) a shaft, having a first end and a second end, and an axis, having a length greater than the nominal thickness of the slats, and a diameter less than the slat spacing;

(b) an axially elongated portion, located at said first end of said shaft, comprising at least one member extending for a distance greater than the slat spacing at right angles from said axis of said shaft length, and having a thickness of less than the slat
10 spacing;

(c) a body portion, located at said second end of said shaft, having a stop surface, an attachment region, and a stabilizer, extending from said stop surface toward said axially elongated portion, being displaced from said axis of said shaft, and having a thickness less than the slat spacing, said attachment region is located on said body on an
15 opposite side with respect to said stabilizer, and offset from said axis of said shaft,

wherein said stop surface is oriented with respect to said axially elongated portion such that, when a force is applied to said attachment region along a thickness axis of the slats, said stabilizer is inserted within the spacing between the slats to an extent limited by said stop surface acting on said slats.

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2. The device according to claim 1, wherein said attachment portion comprises an aperture through said body.

3. The device according to claim 1, wherein said attachment portion is displaced from said axis of said shaft by a distance approximately equal to a length of said shaft.

5 4. The device according to claim 1, further comprising a fulcrum, defined by a medial edge of said stop surface, said fulcrum extending to said second end of said shaft.

10 5. The device according to claim 1, wherein said slat spacing is approximately $3/16$ ".

6. The device according to claim 1, wherein said slat nominal thickness is approximately $5/4$ ".

15 7. The device according to claim 1, wherein said shaft is about 1.25", said axially elongated portion and said stop surface each extend at least 0.75" from said shaft in each of opposite directions, at right angles to said stabilizer, and said stabilizer extends at least 0.50" into a space between the slats.

20 8. The device according to claim 1, wherein said device is integral and formed of a metal.

9. The device according to claim 1, wherein said device is injection molded from a polymer.

10. The device according to claim 1, wherein said device is formed of an ultraviolet stabilized glass filled polymer.

11. The device according to claim 1, wherein said device is formed from Nylon injection molded from a polymer.

12. The device according to claim 1, wherein said device comprises a formed wire.

13. The device according to claim 1, wherein said device is formed as a composite of a high tensile strength element within said shaft and an over-molded body.

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14. A tie down device for coupling a strap to a deck formed of spaced parallel slats, comprising:

- (a) a high tensile strength shaft, adapted for insertion between slats;
- (b) an extension from said shaft at right angles to an axis of said shaft, extending at least a spacing width of the slats from said axis;
- (c) a fulcrum, at an end of said shaft opposite said extension, merging into a stop surface extending from said shaft along an axis parallel to said extension;

(d) an attachment portion located axially displaced from a centerline of said shaft; and

(e) a stabilizer, extending from said stop surface toward said extension, on an opposite side of said fulcrum with respect to said attachment portion, at right angles to said fulcrum and at right angles to said shaft, adapted to extend into a space between slats when a force is applied to said attachment portion and to potentially clear the space between slats when no force is applied.

15. The device according to claim 14, formed as an integral unit of a molded polymer.

16. A tie down device, comprising:

(a) a high tensile strength shaft, having a diameter less than about 3/16";

(b) a portion extending at least about 3/16" from said shaft at right angles to an axis of said shaft;

(c) a surface, at an end of said shaft opposite said portion, extending at least about 3/16" along an axis parallel to said extension;

(d) an attachment portion located axially displaced from a centerline of said shaft; and

(e) a stabilizer, at an end of said shaft opposite said portion, extending at least about 3/16" along an axis at right angles to said extension and said axis of said shaft.

17. The device according to claim 16, formed as an integral unit of a molded polymer.